

Attorney Docket No. 5725.0213-00

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

RECEIVED
AUG 21 2001
PATENT
TECH CENTER 1000/2000

*27/Reply
Brief (3)*

In re Application of:

Paolo GIACOMONI

Application No. 08/894,788

Filed: February 9, 2000

For: NITRIC OXIDE SYNTHASE
INHIBITORS

Group Art Unit: 1615

Examiner: L. Channavajjala

*Beet
8-29-01*

Assistant Commissioner for Patents
Washington, D.C. 20231

Sir:

REPLY BRIEF UNDER 37 C.F.R. § 1.193

Pursuant to 37 C.F.R. § 1.193, Appellant presents in triplicate a reply to the Examiner's Answer, dated June 22, 2001, and an accompanying Request for Oral Hearing. If any fees are required in connection with the filing of this paper that are not filed herewith, Appellant requests that the required fees be charged to Deposit Account No. 06-0916.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

REMARKS

In response to Appellant's Brief filed May 22, 2001, the Examiner has maintained her position that the presently claimed invention is *prima facie* obvious over U.S. Patent No. 5,716,625 to *Hahn et al.* ("*Hahn*") in view of either U.S. Patent No. 5,358,969 to *Williamson et al.* ("*Williamson*") or U.S. Patent No. 5,449,688 to *Wahl et al.* ("*Wahl*"), or both. Appellant respectfully continues to disagree.

I. The Teachings Fairly Suggested by the References Do Not Motivate Any of the Combinations Proposed by the Examiner

The Examiner has maintained the position that "it would have been obvious for a skilled artisan to substitute the strontium cation of Hahn et al. with the NO synthase inhibitors of Williamson et al., with an expectation to inhibit the irritation ... of Hahn et al." (Examiner's Answer dated June 22, 2001, page 4, lines 9-11.) Appellant, however, respectfully disagrees, as the Examiner continues to disregard relevant parts of the references relied upon, thereby distorting what would otherwise be "fairly suggested" to one of skill in the art by such references. Because the reference teachings are distinct, specifically, on the points upon which the Examiner relies for commonality, there is no motivation for any of the combinations proposed by the Examiner. (See Appellant's Brief dated May 22, 2001, pages 6-11, for a more detailed discussion of the differences between the cited references.)

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

In the Examiner's Answer, the Examiner has attempted to tie the references together with a single, albeit *uncommon* thread—the treatment of inflammatory conditions. The crux of the Examiner's argument is that "all the references are directed to skin inflammatory conditions (dermatitis, psoriasis) caused by chemical or physical agents." (Examiner's Answer dated June 22, 2001, page 6, lines 7-9.) This general statement is not contended by Appellant. However, the alleged existence of any motivation to combine the teachings of the cited references, whose teachings have been trivialized and distorted by the office, is strongly disputed.

Appellant offers the following analogy to put in perspective the relationship between the cited references. For example, one might use an antibiotic for the treatment of a bacterial infection of the sinuses. However, one might also use a decongestant for the treatment of the stuffy-nose symptom associated with such an infection. As would unquestionably be recognized by those skilled in the relevant art, it would not be obvious to use the decongestant (symptom treatment) to treat the systemic bacterial infection just because both agents treat sinus conditions. Likewise, the NO synthase inhibitors of *Williamson* and *Wahl* are analogous to the antibiotic mentioned above—they combat the systemic inflammatory disease, dermatitis; while the anti-irritant of *Hahn* is analogous to the decongestant—it treats a symptom of the disease, irritation. As has been shown in Appellant's Brief, these components are not interchangeable, nor do the references fairly suggest their substitution.

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N. W.
WASHINGTON, DC 20005
202-408-4000

In addition, Appellant submits that the cited references also employ different mechanisms for the treatment of their respective condition or symptom. For example, *Hahn* teaches localized administration of an agent for superficially combating irritation¹, while *Williamson* and *Wahl* teach systemic administration, regardless of the mode of administration (whether the agent is applied topically, locally, or subcutaneously), of an agent for intra-cellularly preventing inflammation. (See Appellant's Brief dated May 22, 2001, pages 8-9, for a more in-depth discussion of the mechanisms and modes of administration disclosed by each reference.) Because the mechanism, let alone the mode of administration, taught by each reference is distinctly different, one skilled in the art would not be motivated to substitute the active agent taught by one reference (*Williamson* or *Wahl*) for the agent taught by the other (*Hahn*), much less reasonably expect such a substitution to be successful.

Furthermore, the Examiner states incorrectly that "Hahn and Williamson teach the treatment of skin conditions such as dermatitis caused by skin irritants." (Examiner's Answer dated June 22, 2001, page 6, line 21—page 7, line 1.) To the contrary, whereas *Williamson* and *Wahl* are concerned with the treatment of the systemic condition itself, *i.e.*, preventing inflammation (dermatitis), *Hahn* is directed to the topical treatment of the symptom of irritation associated with such a condition. As

¹ Appellant, by way of this Reply Brief, corrects an inadvertent clerical error that appears in Appellant's Brief dated May 22, 2001, page 8, line 18. Therein, Appellant's Brief recites "irritation or inflammation," however, Appellant's citation to the abstract and to column 10, lines 43-47, of *Hahn* recite only the term "irritation."

provided below, the reference teachings are distinctly different because one treats a systemic condition, while the other treats a symptom of that condition, and thus the combination is not only unreasonable, but not supported by the art.

A. Hahn Does Not Treat Systemic Conditions

Hahn clearly recognizes that inflammation of the skin, *i.e.*, dermatitis, is a condition in and of itself, separate and distinct from the symptoms, *e.g.*, irritation, associated therewith. (See *also, e.g.*, Dorland's Illustrated Medical Dictionary 360 (26th ed. 1981), copy submitted herewith for the Examiner's convenience.) In an effort to create support for her position, the Examiner states that *Hahn* "teaches a number of substances, which when applied topically can cause skin irritation ... which ranges from mild irritation to severe dermatitis conditions." (Examiner's Answer dated June 22, 2001, page 3, lines 7-10.) Appellant submits that this unsupported, general characterization of *Hahn* has been pieced together from several unrelated passages of the reference in order to favor the Examiner's position, as Appellant, after painstakingly searching for this teaching in *Hahn*, cannot find it.

Rather, contrary to the Examiner's unsupported assertion, *Hahn* teaches that "[t]he severity of irritation to the susceptible user may range from subclinical to mild to severe." (*Hahn*, col 1., lines 59-61.) Since neither the art nor *Hahn* characterizes inflammation as a degree of irritation, it is improper for the Examiner to allege the terms

dermatitis and inflammation are synonymous with irritation. Thus, Appellant respectfully submits that, in contrast to the bald assertions of the Examiner, *Hahn* fairly suggests that treating irritation associated with dermatitis is distinctly different from treating inflammation.

The Examiner unsuccessfully attempts to combine the cited references by alleging "the references teach the treatment of [the] same skin conditions (dermatitis, chemical and environmental irritation etc.)." (Examiner's Answer, page 5, lines 19-22.) However, although each reference recites the term "dermatitis," *Hahn* treats the skin symptom of irritation associated with dermatitis, while *Williamson* and *Wahl* treat the systemic skin condition of dermatitis/inflammation itself. (Appellant's Brief dated May 22, 2001, page 8, line 16—page 10, line 7.)

For example, to reach the conclusion that all of the references treat the same condition, the Examiner reads out of context the disclosure in *Hahn* concerning skin conditions such as psoriasis and contact dermatitis. (Examiner's Answer, page 3, lines 10-12.) This disclosure discusses dermatitis only as a condition that makes the skin more vulnerable to skin irritants, such as chemicals. (*Hahn*, col. 3, lines 28-43.) This increase in vulnerability "may exacerbate the irritation attributable to a pre-existing skin disease." (*Hahn*, col. 2, lines 62-63.) Appellant submits that this disclosure in *Hahn* fairly suggests only the treatment of irritation and, with respect to existing skin diseases, the treatment of the exacerbated irritation. Thus, the discussion in *Hahn* concerning various skin diseases, such as dermatitis and psoriasis, revolves around irritation

associated with inflammation, not inflammation itself. Therefore, regardless of the fact that the reference recites the word dermatitis, *Hahn* only discloses treatment of the symptom of irritation associated therewith.

Further, one goal specifically pronounced by *Hahn* is to reduce irritation associated with dermatitis, not reduce inflammation. (*Hahn*, col. 4, lines 59-61.) In one passage, *Hahn* recognizes that topical products may contain chemicals that cause irritation *or* inflammation. (*Hahn*, col. 1, lines 53-55.) But, in the next sentence and the many paragraphs following this disclosure, *Hahn* focuses on treating only the irritation. (*Hahn*, col. 1, lines 55-57.) Further, in the twenty-five figures in *Hahn*, not one charts a measurement of inflammation, only irritation. And in all of the examples, *Hahn* only measures irritation. (*Hahn*, col. 17, line 1—col. 22, line 27.) Accordingly, it is Appellant's position that if *Hahn* were concerned with systemic treatment of the disease-causing inflammation, the reference would have disclosed more than a cursory appearance of the word.

B. Williamson and Wahl Do Not Teach Treatment of Disease Symptoms

The Examiner alleges that a skilled artisan would be motivated to incorporate “any” anti-irritant as a substitute for the strontium cation of *Hahn* to “counteract” irritation. (Examiner's Answer, page 4, lines 5-9.) Although Appellant disagrees with the proposition that “any” anti-irritant could be substituted, Appellant notes that the

agents taught in *Williamson* and *Wahl*, NO synthase inhibitors, are not taught or even suggested as non-systemic anti-irritants. Therefore, the only logical way that the Examiner could have come to this conclusion is through hindsight vision using the lens of Appellant's specification, which teaches NO synthase inhibitors as anti-irritants. (Specification, page 3, lines 16-18; See also Appellant's Brief dated May 22, 2001, page 14, lines 3-20, for a detailed discussion and legal support against the use of hindsight reconstruction.)

Simply put, there is no mention of irritation treatment in *Williamson* or *Wahl*. Therefore, these references cannot be said to treat, as disclosed by *Hahn*, the skin condition of irritation associated with dermatitis, as the Examiner would hope.

Further, *Hahn* recognizes that some agents, for example steroidal agents, which are used to combat inflammation, are ineffective against irritation, for example pressure, heat, sting, or itch. (*Hahn*, col. 8, lines 55-60.) Appellant submits that this passage, alone, would be sufficient to deter one skilled in the art from even trying any agent other than an anti-irritant, such as the anti-inflammatory compounds of *Williamson* and *Wahl*. (Appellant's Brief dated May 22, 2001, page 11, lines 3-13.)

The absence of a teaching in *Hahn* of systemically combating inflammation and the absence of a teaching in *Williamson* and *Wahl* of combating symptomatic irritation have been ignored by the Examiner because the word "dermatitis" appears in each reference. This invalid premise has plagued the Examiner's position throughout the prosecution history of this case, and it continues to manifest itself in the Examiner's

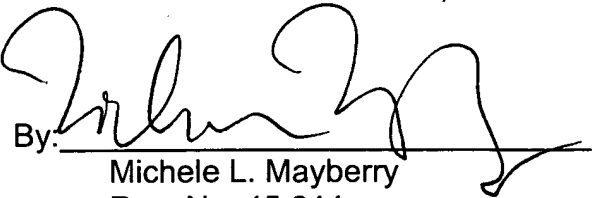
Answer. However, Appellant has shown that this word alone is insufficient to unite the references. Accordingly, in view of the reference teachings and Appellant's above-detailed position, in combination with the remarks within Appellant's Brief, Appellant respectfully submits that the proposed substitution is not obvious.

II. Conclusion

For the reasons of record and the reasons set forth above, Appellant maintains that a *prima facie* case of obviousness has not been established by the Examiner based on the cited references, either alone or in combination. The Examiner has failed to demonstrate that one of ordinary skill in the art would have been motivated to make the Examiner's proposed modifications. Further, the Examiner has failed to set forth any reason why one of ordinary skill in the art, even if such a modification was made, would have a reasonable expectation of success.

Accordingly, Appellant respectfully requests reversal of the rejection of claims 31-38, 40-54, and 56-66 under 35 U.S.C. § 103.

Respectfully submitted,
FINNEGAN, HENDERSON, FARABOW,
GARRETT & DUNNER, L.L.P.

By: 
Michele L. Mayberry
Reg. No. 45,644

Dated: August 21, 2001

Attachment: Excerpt from Dorland's Illustrated Medical Dictionary (26th ed. 1981)

LAW OFFICES

FINNEGAN, HENDERSON,
FARABOW, GARRETT,
& DUNNER, L.L.P.
1300 I STREET, N.W.
WASHINGTON, DC 20005
202-408-4000